

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Arthur M. Krieg et al.  
Serial No.: 10/735,592  
Confirmation No.: 2533  
Filed: December 11, 2003  
For: CPG NUCLEIC ACIDS AND METHODS OF USE  
Examiner: N. M. Minnifield  
Art Unit: 1645

Certificate of Electronic Filing Under 37 CFR 1.8

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted via the Office electronic filing system in accordance with § 1.8(a)(4).

Dated: February 17, 2011

Signature:  (Sharon R. Lloyd)

APPLICATION FOR PATENT TERM ADJUSTMENT UNDER 37 CFR §1.705

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

In accordance with 37 CFR §1.705(b), Applicant requests reconsideration of the patent term adjustment (“PTA”) for U.S. Application No. 10/735,592 (“the ‘592 Application”). Applicant provides, below, a statement of the facts involved, specifying the correct PTA and the basis under 37 CFR §1.702 for the adjustment, the relevant dates for which adjustment is sought, and the adjustment to which the patent is entitled.

1. On February 18, 2010, the U.S. Patent and Trademark Office (“USPTO”) mailed a Notice of Allowance and Determination of Patent Term Adjustment (Exhibit 1) for U.S. Application No. 10/735,592, which indicated that the ‘592 Application was entitled to a patent term adjustment of 265 days.

2. According to the Patent Term Adjustments page (Exhibit 2) on the Patent Application Information Retrieval (PAIR) system, the USPTO accorded the ‘592 Application a patent term

adjustment of 790 days for delays that occurred at the USPTO and reduced the PTA by 515 days for delays that Applicant allegedly incurred.

3. Applicant submits that the correct PTA should be 1616 days, which is the net USPTO delay of 2131 days minus the apparent net Applicant delay of 515 days.

4. The USPTO delay resulted from the USPTO taking two actions outside the time periods allowed under U.S. Patent Law and Rules of Practice in Patent Cases. The first, which was noted on the PTA page of PAIR, was the USPTO's failure to mail a first notification under 35 U.S.C. § 132 within the 14-month period following the filing date of the application. *See* 35 U.S.C. § 154(b)(1)(A)(i); *See also* 37 CFR §§ 1.702(a)(1) and 1.703(a)(1). Although the 14-month period following the actual filing date of the application ended on 2/11/2005, the USPTO did not mail a first notification (a Restriction Requirement) until 06/26/2006. This period of time, from 2/11/2005 through 06/26/2006, resulted in a USPTO delay of 500 days.

5. The second component of the USPTO delay, which was not included on the PTA page of PAIR, resulted from the USPTO's failure to issue the '592 Application within three years of its actual filing date, December 11, 2003. *See* 35 U.S.C. § 154(b)(1)(B). Although the issue date of the '592 Application is unknown, the Notice of Allowance and Determination of Patent Term Adjustment assumes that the patent will issue on May 31, 2011, which is the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of the notice. The period of delay thus began on the first day following the three-year period, December 11, 2006, will end on the assumed issue date of May 31, 2011, and results in a USPTO delay of 1631 days.

6. The net USPTO delay of 2131 days is the sum of the two delay periods (500 days and 1631 days) minus the number of days the two periods overlap on the calendar. *See Wyeth v. Dudas*, 580 F. Supp. 2d at 138, 141 (D.D.C. 2008) (holding that the "only way that periods of time can 'overlap' is if they occur on the same day"). Since the first period of USPTO delay occurred from 02/11/2005 through 06/26/2006, and the second period of USPTO delay occurred from 12/11/2006 through 05/31/2011, neither period overlaps, and the net USPTO delay is just the sum of the two delay periods, i.e., 2131 days.

7. The Applicant delay listed on PAIR resulting from three instances of Applicant filing an IDS after a reply has been filed (one instance including the filing of 2 IDSs; *See* 37 CFR §§ 1.704(c)(8)); one instance of Applicant filing a response more than three months after the mailing date of an Office Action (*See* 37 CFR §§ 1.704(b)); and two instances of Applicant filing a supplemental response to an allegedly non-responsive amendment (*See* 37 CFR §§ 1.704(c)(7)) is 515 days.

8. A terminal disclaimer was not filed in this case and the '592 Application is not subject to a terminal disclaimer.

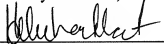
**CONCLUSION**

Based on the foregoing, Applicant respectfully submits that the correct patent term adjustment should be 1616 days as opposed to the 265-day PTA listed in the Notice of Allowance. The additional 1351 days of patent term adjustment result from the USPTO's failure to issue the '592 Application within 3 years of its filing date.

Applicant submits \$200.00, which is the fee set forth in 37 CFR § 1.18(e) for filing an application for patent term adjustment. If there is any additional fee occasioned by this application and request that is not covered by the enclosed fee, please charge any deficiency to Deposit Account No. 232825.

Dated: February 17, 2011

Respectfully submitted,

By 

Helen C. Lockhart

Registration No.: 39,248

WOLF, GREENFIELD & SACKS, P.C.

600 Atlantic Avenue

Boston, Massachusetts 02210-2206

617.646.8000

# **PART B - FEE(S) TRANSMITTAL**

**Complete and send this form, together with applicable fee(s), to: Mail**

**Mail Stop ISSUE FEE  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
or Fax (571)-273-2885**

**Exhibit 1**

**INSTRUCTIONS:** This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

7590

11/18/2010

Helen C. Lockhart, Ph.D.  
Wolf, Greenfield & Sacks, P.C.  
600 Atlantic Avenue  
Boston, MA 02210

**Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/735,592

12/11/2003

Arthur M. Krieg

C 1037.70038US01

2533

TITLE OF INVENTION: 5' CPG NUCLEIC ACIDS AND METHODS OF USE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	02/18/2011

EXAMINER	ART UNIT	CLASS-SUBCLASS
MINNFIELD, NITA M	1645	514-044000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.  
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47, Rev 03-02 or more recent) attached. Use of a **Customer Number** is required.

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively,  
(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1	_____
2	_____
3	_____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY AND STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee  
☐ Publication Fee (No small entity discount permitted)  
☐ Advance Order - # of Copies \_\_\_\_\_

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.  
☐ Payment by credit card. Form PTO-2038 is attached.  
☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_

Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_

Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.**

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
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Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,592	12/11/2003	Arthur M. Krieg	C 1037.70038US01	2533

7590

11/18/2010

Helen C. Lockhart, Ph.D.  
Wolf, Greenfield & Sacks, P.C.  
600 Atlantic Avenue  
Boston, MA 02210

EXAMINER

MINNIFIELD, NITA M

ART UNIT

PAPER NUMBER

1645

DATE MAILED: 11/18/2010

**Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)**  
(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 265 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 265 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

**Notice of Allowability**

Application No.

10/735,592

Applicant(s)

KRIEG ET AL.

Examiner

N. M. Minnifield

Art Unit

1645

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8/20/10, 11/3/10.
2. ☒ The allowed claim(s) is/are 1,6-8,10,13-15,17-20,23,24,94; now 1-15 respectively.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08) ✓  
Paper No./Mail Date 10/14/10
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413).  
Paper No./Mail Date 11/3/10
7. ☒ Examiner's Amendment/Comment ✓
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_





## Summary of Record of Interview Requirements

### Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

### Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

### 37 CFR § 1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,  
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

### Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

### EXAMINER'S AMENDMENT

1. Applicants' amendment filed August 20, 2010 is acknowledged and has been entered. Claims 2-5, 9, 11, 12, 21, 22, 25-93 and 95-102 have been canceled. Claim 94 has been amended. Claims 1, 6-8, 10, 13-20, 23, 24 and 94 are now pending in the present application. All rejections have been withdrawn in view of Applicants' amendment to the claims and/or comments.

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Helen C. Lockhart, 39248 on November 3, 2010.

3. The application has been amended as follows:

1. (Currently amended) An isolated oligonucleotide comprising:

5'TCGX<sub>1</sub>X<sub>2</sub>N<sub>1</sub>3'

wherein X<sub>1</sub> is any nucleotide, X<sub>2</sub> is A, T, or C when X<sub>1</sub> is C or A, X<sub>2</sub> is A or G when X<sub>1</sub> is T, X<sub>2</sub> is any nucleotide when X<sub>1</sub> is G, N<sub>1</sub> is 2-95 nucleotides, wherein the CG dinucleotide is an unmethylated CG dinucleotide, wherein 5' designates the 5' end of the oligonucleotide and 3' designates the 3' end of the oligonucleotide, and wherein N<sub>1</sub> does not include an unmethylated CG motif, wherein the oligonucleotide is 13-100 nucleotides in length.

13. (Currently amended) The oligonucleotide of claim 1, wherein N<sub>1</sub> is N<sub>2</sub>N<sub>3</sub> and wherein N<sub>2</sub> is [8-94] 8-40 nucleotides and N<sub>3</sub> is 2-5 pyrimidines.

16. (Canceled)

4. Claims 1, 6-8, 10, 13-15, 17-20, 23 and 24 are directed to an allowable product. Pursuant to the procedures set forth in MPEP § 821.04(B), claim 94, directed to the process of making or using an allowable product, previously withdrawn from consideration as a result of a restriction requirement, is hereby rejoined and fully examined for patentability under 37 CFR 1.104.

Because all claims previously withdrawn from consideration under 37 CFR 1.142 have been rejoined, **the restriction requirement as set forth in the Office action mailed on June 26, 2006 is hereby withdrawn.** In view of the withdrawal of the restriction requirement as to the rejoined inventions, applicant(s) are advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Once the restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. See *In re Ziegler*, 443 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

5. Claims 1, 6-8, 10, 13-15, 17-20, 23, 24 and 94 have been allowed and renumbered 1-15 respectively.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to N. M. Minnifield whose telephone number is 571-272-0860. The examiner can normally be reached on M-F (9:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Helms can be reached on 571-272-0832. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

Art Unit: 1645

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. M. Minnifield/  
Primary Examiner, Art Unit 1645

FORM PTO-1449/A and B (modified PTO/SB/08)  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				APPLICATION NO.: 10/735,592		ATTY. DOCKET NO.: C1037.70038US01	
				FILING DATE: December 11, 2003		CONFIRMATION NO.: 2533	
				APPLICANT: Arthur M. Krieg et al.			
Sheet		1	of	2	GROUP ART UNIT: 1645		EXAMINER: Nita M. Minnifield

#### U.S. PATENT DOCUMENTS

Examiner's Initials *	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication or Issue of Cited Document MM-DD-YYYY
		Number	Kind Code		
		5,646,126		Cheng et al.	07-08-1997
		7,279,555	B2	Peterson	10-09-2007
		7,521,063	B2	Klinman et al.	04-21-2009
		7,566,703	B2	Krieg et al.	07-28-2009
		7,569,553	B2	Krieg	08-04-2009
		7,576,066	B2	Krieg	08-18-2009
		7,585,847	B2	Bratzler et al.	09-08-2009
		7,605,138	B2	Krieg	10-20-2009
		7,615,539	B2	Krieg et al.	11-10-2009
		7,666,674	B2	Klinman et al.	02-23-2010
		7,674,777	B2	Krieg	03-09-2010
		7,713,529	B2	Krieg et al.	05-11-2010
		7,276,489	B2	Agrawal et al.	10-02-2007
		7,723,022	B2	Krieg et al.	05-25-2010
		7,723,500	B2	Krieg et al.	05-25-2010
		7,776,344	B2	Hartmann et al.	08-17-2010
		2005-0026861	A1	Kandimala et al.	02-03-2005
		2009-0074851	A1	Bachmann et al.	03-19-2009
		2009-0155212	A1	Bratzler et al.	06-18-2009
		2009-0191188	A1	Krieg et al.	07-30-2009
		2009-0202575	A1	Krieg et al.	08-13-2009
		2009-0214578	A1	Bauer	08-27-2009
		2009-0306177	A1	Uhlmann et al.	12-10-2009
		2009-0311277	A1	Krieg	12-17-2009
		2010-0125101	A1	Krieg et al.	05-20-2010
		2010-0166780	A1	Debelak et al.	07-01-2010
		2010-0183639	A1	Uhlmann et al.	07-22-2010

#### FOREIGN PATENT DOCUMENTS

Examiner's Initials *	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Translation (Y/N)
		Office/ Country	Number	Kind Code			
		WO	94/08053	A1	ISIS Pharmaceuticals, Inc.	04-14-1994	

EXAMINER:

/N. M. Minnifield/ (11/03/2010)

DATE CONSIDERED:

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ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /NMM/

FORM PTO-1449/A and B (modified PTO/SB/08)  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>			APPLICATION NO.: 10/735,592	ATTY. DOCKET NO.: C1037.70038US01	
			FILING DATE: December 11, 2003	CONFIRMATION NO.: 2533	
			APPLICANT: Arthur M. Krieg et al.		
			GROUP ART UNIT: 1645	EXAMINER: Nita M. Minnifield	
Sheet	2	of	2		

	WO	00/41720	A1	CSL Limited	07-20-2000	
	WO	01/51083	A2	Aquila Biopharmaceuticals, Inc.	07-19-2001	
	WO	01/54720	A1	Cistem Biotechnologies-Gmbh	08-02-2001	
	WO	03/040308	A2	The Government of the United States of America	05-15-2003	
	WO	03/085110	A2	Cureon A/S	10-16-2003	
	WO	2005/013891	A2	Juvaris Biotherapeutics, Inc.	02-17-2005	

# **OTHER ART — NON PATENT LITERATURE DOCUMENTS**

Examiner's Initials *	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)
		AGRAWAL, Importance of nucleotide sequence and chemical modifications of antisense oligonucleotides. Biochim Biophys Acta. 1999 Dec 10;1489(1):53-68. Review.	
		AZUMA et al., Development of immunoadjuvants for immunotherapy of cancer. Int Immunopharmacol. 2001 Jul;1(7):1249-59. Review.	
		FEARON et al., A minimal human immunostimulatory CpG motif that potently induces IFN-gamma and IFN-alpha production. Eur J Immunol. 2003 Aug;33(8):2114-22.	
		IOANNOU et al., CpG-containing oligodeoxynucleotides, in combination with conventional adjuvants, enhance the magnitude and change the bias of the immune responses to a herpesvirus glycoprotein. Vaccine. 2002; 21: 127-37.	
		JORGENSEN et al., CpG DNA induces protective antiviral immune responses in Atlantic salmon (Salmo salar L.). J Virol. 2003 Nov;77(21):11471-9.	
		KRIEG et al., Identification of an oligodeoxynucleotide sequence motif that specifically inhibits phosphorylation by protein tyrosine kinases. Antisense Nucleic Acid Drug Dev. 1997 Apr;7(2):115-23.	
		SAMANI et al., Best minimally modified antisense oligonucleotides according to cell nuclease activity. Antisense Nucleic Acid Drug Dev. 2001 Jun;11(3):129-36.	
		SONEHARA et al., Hexamer palindromic oligonucleotides with 5'-CG-3' motif(s) induce production of interferon. J Interferon Cytokine Res. 1996 Oct;16(10):799-803.	
		UHLMANN et al., Use of minimally modified antisense oligonucleotides for specific inhibition of gene expression. Methods Enzymol. 2000;313:268-84.	
		UHLMANN, Oligonucleotide technologies: synthesis, production, regulations and applications. 29-30th November 2000, Hamburg, Germany. Expert Opin Biol Ther. 2001 Mar;1(2):319-28.	
		WAHLESTEDT et al., Potent and nontoxic antisense oligonucleotides containing locked nucleic acids. Proc Natl Acad Sci U S A. 2000 May 9;97(10):5633-8.	
		YU et al., Immunostimulatory activity of CpG oligonucleotides containing non-ionic methylphosphonate linkages. Bioorg Med Chem. 2001 Nov;9(11):2803-8.	

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10/735,592

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## Patent Term Adjustment

Filing or 371(c) Date:	12-11-2003	Overlapping Days Between {A and B} or {A and C}:	0
Issue Date of Patent:	-	Non-Overlapping USPTO Delays:	780
A Delays:	780	PTO Manual Adjustments:	0
B Delays:	0	Applicant Delays:	515
C Delays:	0	Total PTA Adjustments:	265

## Patent Term Adjustment History

## Explanation Of Calculations

Number	Date	Contents Description	PTO (Days)	APPL (Days)	Start
91	11-18-2010	Mail Notice of Allowance			0
90	11-11-2010	Issue Revision Completed			0
89	11-11-2010	Notice of Allowance Data Verification Completed			0
88	11-11-2010	Document Verification			0
87	11-11-2010	Document Verification			0
86	11-11-2010	Examiner's Amendment Communication			0
85	11-04-2010	Notice of Allowability			0
84	10-14-2010	Information Disclosure Statement considered			0
83	10-14-2010	Reference capture on IDS			0
82	10-14-2010	Information Disclosure Statement (IDS) Filed		55	77
81	10-14-2010	Information Disclosure Statement (IDS) Filed			0
80	08-23-2010	Date Forwarded to Examiner			0
79	08-20-2010	Supplemental Response			0
78	08-23-2010	Date Forwarded to Examiner			0
77	08-20-2010	Response to Election / Restriction Filed			0
76	07-20-2010	Mail Restriction Requirement			0
75	07-19-2010	Requirement for Restriction / Election			0
74	05-04-2010	Date Forwarded to Examiner			0
73	04-26-2010	Response to Election / Restriction Filed		147	70
72	03-26-2010	Mail Notice of Informal or Non-Responsive Amendment			0
71	01-15-2010	Date Forwarded to Examiner			0
70.1	11-30-2009	Informal or Non-Responsive Amendment after Examiner Action			0
70	11-30-2009	Response to Election / Restriction Filed			0

## Patent Official Gazette

\* Search Patents &amp; Applications

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## Other

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Policy &amp; Law

Reports

69	10-29-2009	Mail Restriction Requirement	10	63
68	10-26-2009	Requirement for Restriction / Election		0
67	08-04-2009	Information Disclosure Statement considered		0
66	08-04-2009	Reference capture on IDS		0
65	08-04-2009	Information Disclosure Statement (IDS) Filed	46	63
64	08-12-2009	Date Forwarded to Examiner		0
63	06-19-2009	Response after Non-Final Action		0
61	08-04-2009	Information Disclosure Statement (IDS) Filed		0
60	03-19-2009	Mail Non-Final Rejection	270	55
59	03-16-2009	Non-Final Rejection		0
58	06-16-2008	Information Disclosure Statement considered		0
57	02-15-2008	Information Disclosure Statement considered		0
56	01-12-2009	Date Forwarded to Examiner		0
55	02-22-2008	Response after Non-Final Action		0
54	06-16-2008	Reference capture on IDS		0
53	06-16-2008	Information Disclosure Statement (IDS) Filed	115	55
52	06-16-2008	Information Disclosure Statement (IDS) Filed		0
51	03-12-2008	Error(s) in CRF Corrected by STIC		0
50	02-15-2008	Reference capture on IDS		0
49	02-15-2008	Information Disclosure Statement (IDS) Filed		0
48	02-22-2008	CRF Disk Has Been Received by Preexam / Group / PCT		0
47	02-15-2008	Information Disclosure Statement (IDS) Filed		0
46	01-18-2008	Mail Miscellaneous Communication to Applicant		0
45	01-17-2008	Miscellaneous Action with SSP		0
44	11-06-2007	Date Forwarded to Examiner		0
43	10-24-2007	Response after Non-Final Action		0
42	09-20-2007	Mail Miscellaneous Communication to Applicant		0
41	09-17-2007	Miscellaneous Action with SSP		0
40	07-15-2007	Date Forwarded to Examiner		0
39	07-05-2007	Response after Non-Final Action	116	36
38	06-01-2007	Mail Notice of Informal or Non-Responsive Amendment		0
37	03-26-2007	Date Forwarded to Examiner		0
36.1	03-11-2007	Informal or Non-Responsive Amendment after Examiner Action		0
36	03-11-2007	Response after Non-Final Action	36	33



35	03-11-2007	Request for Extension of Time - Granted		0
34	04-29-2004	Corrected filing receipt		0
33	11-03-2006	Mail Non-Final Rejection		0
32	10-30-2006	Non-Final Rejection		0
31	07-24-2006	Information Disclosure Statement considered		0
30	07-09-2004	Information Disclosure Statement considered		0
29	08-09-2006	Date Forwarded to Examiner		0
28	07-27-2006	Response to Election / Restriction Filed		0
27	04-29-2004	Preliminary Amendment		0
26	07-24-2006	Reference capture on IDS		0
25.7	07-24-2006	Information Disclosure Statement (IDS) Filed		0
25	07-24-2006	Information Disclosure Statement (IDS) Filed		0
24	06-26-2006	Mail Restriction Requirement	500	0.5
23	06-21-2006	Requirement for Restriction / Election		0
22	05-10-2005	IFW TSS Processing by Tech Center Complete		0
21	05-10-2005	Case Docketed to Examiner in GAU		0
20.7	07-09-2004	Information Disclosure Statement (IDS) Filed		0
20	07-09-2004	Information Disclosure Statement (IDS) Filed		0
19	05-25-2004	Application Return from OIPE		0
18	05-25-2004	Application Return TO OIPE		0
17	05-25-2004	Application Dispatched from OIPE		0
16	05-25-2004	Application Is Now Complete		0
15	04-29-2004	Payment of additional filing fee/Preexam		0
14	12-11-2003	Claim Preliminary Amendment		0
11	04-29-2004	A statement by one or more inventors satisfying the requirement under 35 USC 115, Oath of the Applicant		0
10	03-29-2004	Notice Mailed--Application Incomplete--Filing Date Assigned		0
7	03-03-2004	Cleared by L&R (LARS)		0
6	02-17-2004	Referred to Level 2 (LARS) by OIPE CSR		0
5	02-17-2004	CASE CLASSIFIED BY OIPE		0
4	01-12-2004	IFW Scan & PACR Auto Security Review		0
3	01-07-2004	Error(s) in CRF Corrected by STIC		0
2	12-11-2003	CRF Disk Has Been Received by Preexam / Group / PCT		0
1	12-11-2003	Initial Exam Team nn		0
0.5	12-11-2003	Filing date		0

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